



SENATE FISCAL AGENCY

NOTES ON THE BUDGET AND ECONOMY

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AN UPDATE ON THE STATE BUILDING AUTHORITY BOND CAP **by Mike Hansen, Fiscal Analyst**

Financing construction projects at public colleges, universities, and State agencies typically occurs in one of two ways. The projects are either paid for with cash, or financed using bond proceeds issued through the State Building Authority (SBA). There is a limit, however, on the amount of bond debt that the SBA can issue, often referred to as the "bond cap". This limit is defined in statute and is currently set at \$2.7 billion. A history of legislative adjustments to the bond cap is displayed in Table 1. It is the amount of bond capacity below the cap that is available for financing the construction of new projects.

Table 1

State Building Authority Bond Limits	
Authorization	Amount (in millions)
Public Act 183 of 1964	\$400.0
Public Act 206 of 1985	\$775.0
Public Act 119 of 1987	\$1,350.0
Public Act 35 of 1993	\$2,000.0
Public Act 127 of 1997	\$2,700.0

The available bond capacity has been decreasing recently due to the increased number of new State-financed construction projects at colleges, universities, and State agencies. Since 1993, the State has authorized 55 building projects at community colleges, totaling \$566.5 million; 52 projects at universities, totaling \$1.8 billion; and nearly 60 projects for State agencies, totaling \$1.2 billion. The combined SBA obligation for all of these projects is nearly \$2.5 billion. When one adds to that figure the estimated cost for projects that have received legislative planning authorization, the amount of available bond capacity for any new projects is projected to be between \$80.0 million and \$90.0 million.

While there are legal, economic, and even philosophical reasons that influence the decision of whether to pay cash or sell bonds in order to finance a new construction project, the decision is often based on the relative availability of one form of financing over another. When the State's budget experiences times of strong revenue, cash spending on capital outlay projects increases. In 1998 and 1999, for example, State revenues grew at very strong levels, providing significant budget surpluses. Those years also witnessed cash financing for two major construction projects, the \$87.8 million Hall of Justice building in Lansing, and the \$95.1 million new Forensic Center for the Department of Community Health in Ypsilanti. In addition, several smaller projects received cash financing, and \$75.0 million was appropriated for State agency special maintenance projects.

As the economy began to slow during fiscal year 2000-01, and cash for the operations of State programs became scarce, the Legislature began to look for ways to ease the demand for cash. One of the solutions developed involved the shift from paying cash for several of the projects appropriated, to financing through the SBA. While this had the effect of "freeing-up" nearly \$235 million in cash, it placed a corresponding constraint on the amount of debt capacity left under the SBA's bond cap. Available debt

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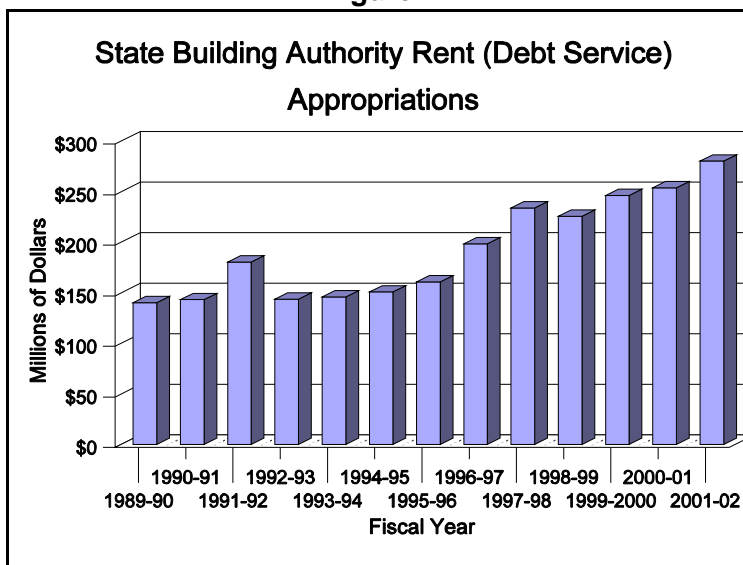
capacity projections that had started the year around \$324 million, fell to around \$90 million after these financing shifts were enacted by year-end.

The impact of these decisions was twofold. First, they had the effect of providing General Fund revenue that might have spared State agencies program reductions that otherwise could have occurred. Second, these actions curtailed the Legislature's ability to commit to much in the way of new construction projects for the future. While \$90 million in available capacity may seem like plenty of authority, it is in fact about the amount of money needed to construct just one new prison.

Finally, it is also important to remember the impact SBA debt has on future General Fund

appropriations. When a project nears completion, the Legislature approves a concurrent resolution that conveys ownership of the project to the SBA, in part to provide security to bond holders. The SBA then rents the facility back to the State. The SBA uses the rent money to pay off the bonds and satisfy the debt obligations of the project. As a rule of thumb, every \$10 million in new bond debt issued through the SBA results in a required annual appropriation of \$1.0 million in rent money to the SBA for debt service. As [Figure 1](#) describes, annual rental payments to the SBA have been growing recently and are now around \$280 million. Consequently, the decision to finance new building projects does not just involve available financing options today, but also must consider the impact on the State's General Fund in the future.

Figure 1



AQUATIC NUISANCE SPECIES

by Nobuko Nagata, Legislative Analyst

Introduction

Exotic species have threatened the Great Lakes ever since Europeans settled in the region, according to a number of sources. Since the 1800s, at least 160 exotic organisms of all types,

including plants, fish, algae, and mollusks, have become established in the Great Lakes. More than one-third of the organisms has been introduced in the past 30 years, a surge coinciding with the opening of the St. Lawrence Seaway.

Aquatic nuisance species not only alter or disrupt the environment, but also threaten public health through the introduction of disease, concentration of pollutants, contamination of drinking water, and other harmful human health effects. This article briefly explains the background of the aquatic nuisance problem; discusses its environmental, economic, and public health impacts; and reviews actions taken by the Federal and state governments.

Background

Aquatic nuisance species are waterborne, non-native organisms that can threaten the diversity or abundance of native species; damage the ecological stability of affected waters; and jeopardize commercial, agricultural, aquacultural, and recreational activity. These species have the potential to cause significant environmental, economic, and public health problems because they have been introduced to a habitat in which there are no natural controls, such as predators, parasites, pathogens, and competitors. They can crowd out native species, alter habitats, change predator/prey relationships, and transmit foreign disease or parasites. They also can cause such problems as food chain disruption, reduced biodiversity, clogging of water intakes, and increased weed growth. Furthermore, measures to eliminate aquatic nuisances from a system sometimes result in more harm.

Ballast water discharge by ships is the most significant source of unintentional introduction of aquatic nuisance species to the Great Lakes. The opening of the St. Lawrence Seaway in 1959 permitted more and larger vessels to pass between the Great Lakes and ports throughout the world, which in turn has greatly increased the risk of new aquatic nuisance species in the Great Lakes region. Ships take on ballast water for stability when they are not filled with cargo. When drawing in ballast water in one port, ships may pick up live organisms. As the ships are loaded with cargo in the Great Lakes ports, ballast water is discharged, releasing the live organisms into the lakes.

Impacts

Economic and Environmental. Some exotic species have caused significant economic and environmental damage to the Great Lakes region, according to various reports. For example, each sea lamprey kills up to 40 pounds of Great Lakes fish in its 12- to 20-month adult parasitic life, which has had a devastating effect on Great Lakes trout, salmon, steelhead, and whitefish fisheries. According to an article in the *Detroit News* (7-22-00), the annual cost of sea lamprey control is estimated at \$13 million.

Another example is the Eurasian ruffe, which apparently was introduced to the Great Lakes from the St. Louis River near Duluth, Minnesota, as the result of a ballast discharge. In Lake Superior, the ruffe feeds on yellow perch, and perch populations evidently have declined an estimated 75% in water bodies where ruffe have become established. Reductions in native fish populations threaten a sport and commercial fishing industry that is valued at almost \$4.5 billion annually.

In addition, zebra mussels have caused substantial damage to water intake systems throughout the Great Lakes basin and have substantially altered the aquatic ecosystem in portions of Lake Erie, Lake St. Clair, and the Saginaw Bay. According to a publication by the Great Lakes Panel on Aquatic Nuisance Species, large water users in the Great Lakes region, including municipalities and industries, pay an average of \$360,000 per year to control zebra mussels, with documented cumulative costs of \$120 million from 1989 through 1994. According to the Michigan Department of Environmental Quality (DEQ), the U.S. Fish and Wildlife Service estimates the potential economic impact at \$5 billion over the next 10 years to U.S. and Canadian factories, water suppliers, power plants, ships, and fisheries within the Great Lakes region. In addition, one severe biological impact since the introduction of zebra mussel into the Great Lakes is the near extinction of native clams and mussels in Lake St. Clair and in the western basin of Lake Erie.

Aquatic nuisance plants species, such as the purple loosestrife, also have significant ecological impacts. The environmental and economic problems caused by the dense growth of these plants, sometimes hundreds of acres in size, include displacement of native vegetation, degradation of water quality and wildlife habitat, limitation of water-based recreation, and lowered property values.

Public Health. Aquatic nuisance species can threaten public health through the introduction of disease, concentration of pollutants, contamination of drinking water, and other harmful human health effects. In November 1991, a South American strain of human cholera bacteria was found in ballast tanks in the port of Mobile, Alabama. Earlier that year, cholera strains were found in oyster and fin-fish samples in Mobile Bay, resulting in a public health advisory to avoid handling and/or eating raw oysters or seafood.

In the mid-1990s, Lake St. Clair experienced record numbers of beach closings as a result of bacterial contamination and the massive accumulation of aquatic vegetation. Many changes in other parts of Lake St. Clair have been attributed to increased water clarity, resulting from the invasion of zebra mussels. The zebra mussels remove significant amounts of phytoplankton from the water, which may increase human and wildlife exposure to organic pollutants. The implications for human health, however, remain unclear.

Prevention and Monitoring

Federal Action. In 1990, the Federal government enacted the Nonindigenous Aquatic Nuisance Prevention and Control Act to prevent and limit the introduction of aquatic nuisance species, promote research and control efforts, develop and implement environmentally sound control methods, and assist the states in a comprehensive research and management program. The Act's ballast water regulations require that vessels bound for the Great Lakes after operating on the waters beyond the Exclusive Economic Zone (an area extending from the baseline of the territorial sea of the United States seaward 200 miles) replace their

ballast water before entering the Great Lakes. The regulations, however, do not apply to vessels operating exclusively among the Great Lakes ports. These vessels' tanks might contain residual fresh water and mud, and may spread nuisance species when ballast tanks are alternately filled and emptied as the ships unload and reload at various Great Lakes ports. Therefore, the Act does not provide safeguards against the dispersion of aquatic nuisance species already established in the United States. In addition, the oceangoing vessels' tanks also may contain foreign species even after the water is exchanged. According to the *Detroit News* (2-15-00), 75% to 95% of the ships entering the Great Lakes are not required to conduct a ballast exchange because they have only residual or leftover ballast in their tanks.

The National Invasive Species Act of 1996 reauthorized and amended the Nonindigenous Aquatic Nuisance Prevention and Control Act to require the U.S. Coast Guard to issue mandatory ballast management reporting and voluntary ballast exchange guidelines to all vessels that enter U.S. waters beyond the Exclusive Economic Zone. According to the DEQ, funding for these prevention and control efforts has not been appropriated as authorized under the Act. Enhanced funding is considered critical to fulfill the Act's prevention and control mandate.

Michigan Action. The Michigan Department of Natural Resources (DNR) and the DEQ have a public information program to limit the spread of aquatic nuisance species and to encourage environmentally sound management practices. The DNR has four Great Lakes Research Stations that are involved in monitoring Great Lakes fish stocks. The major thrusts of the studies are to measure changes due to harmful invaders and other external sources.

In addition, Public Act 144 of 2001 requires the DEQ to determine whether vessels operating on the Great Lakes and the St. Lawrence Waterway are complying with ballast water management practices, determine whether oceangoing vessels operating on the Great Lakes are using a ballast water treatment method to prevent the introduction of aquatic nuisance species; compile, maintain, and distribute lists of vessels that

comply with the management practices or treatment methods; and post the lists on the DEQ website. Owners of vessels not on the compliance list are not eligible for a grant, loan, or award administered by the DEQ. (A Senate Fiscal Agency analysis of the Act (Enrolled Senate Bill 152) may be found on the Legislature's Internet site (<http://www.michiganlegislature.org>).)

The Michigan Sea Grant College program has an Aquatic Nuisance Office that publishes a map on zebra mussel sightings in Michigan waters and produces a database of lakes monitored each year. In addition, the office coordinates a program for citizen monitoring of zebra mussels in Michigan's inland lakes.

Other States. Many states have emphasized public education and awareness to limit the expansion of aquatic nuisance species. Boaters are urged to wash boats and trailers before moving to new lakes and rivers and to leave behind unused bait and bait bucket water. Texas and Florida have established check stations to look for zebra mussels attached to boat hulls. California requires ballast exchange for ships en route to its ports from the Pacific Ocean, and levies fees on each ship to pay for salinity tests that monitor compliance. Washington also requires ballast exchange and calls for the development over the next two years of methods

to remove as many live organisms as possible from ballast water.

Conclusion

The negative impact of aquatic nuisance species on the health and economy of the Great Lakes is considered by many experts to be the most serious threat to the quality of the Great Lakes ecosystem. Some people contend that the current Federal regulations and enforcement measures are inadequate to regulate ballast water and to stop the introduction of aquatic nuisance species. Although Michigan's recent enactment of Public Act 114 is considered a significant achievement, many believe that immediate and cooperative efforts are needed at Federal, regional, state, and local levels through a multistate agreement or an effective Federal law to avoid mounting environmental and economic costs.

Several projects have been undertaken to explore various methods of treating ballast water, including heat, filtration, and biocides, in an effort to prevent the transportation of aquatic nuisance species into the waters of the Great Lakes. In addition, management authorities and research organizations are investigating the biology and ecology of these organisms and searching for effective management tools that will have minimal detrimental effect on the lakes.

REDUCTION OF MICHIGAN'S TAXES DUE TO FEDERAL 2001 TAX CUTS by Jay Wortley, Senior Economist

In June 2001, President Bush and the Congress enacted the largest cut in Federal taxes since 1982. These tax cuts, which were contained in the Economic Growth and Tax Relief Reconciliation Act of 2001, primarily affect the Federal individual income and estate taxes. Because Michigan's income and estate taxes are directly linked to their Federal counterparts, these Federal tax changes also will reduce Michigan's tax revenue. This article summarizes the Federal tax cuts, and explains why, and by how much, these cuts will have an impact on Michigan's taxes.

Federal Tax Cuts

The Economic Growth and Tax Relief Reconciliation Act of 2001 contains many tax changes that are phased-in and -out over the next 10 years. The major components of the tax cuts contained in this Act include:

- A reduction in the marginal tax rates of the individual income tax, plus the addition of a new low tax bracket with a 10% tax rate.
- Payment of a tax rebate to taxpayers in the summer of 2001, which equaled the tax cut resulting from the new 10% tax bracket.

- A phased-in increase in the income tax child exemption from \$500 per child to \$1,000 per child.
- An increase in the standard deduction for married couples to help reduce the "marriage tax penalty".
- A gradual reduction of the estate tax beginning in 2002, and the complete elimination of this tax in 2010.
- Delayed realization of almost 60% of the tax cuts until the period from 2007 to 2011, while the enacted tax cuts will reduce Federal government revenue from FY 2001 to FY 2011.
- The expiration at the end of 2010 of all of the tax cuts enacted in this Act, to the levels in place before the Act was enacted.

All of the tax changes contained in this 2001 Federal tax law will reduce Federal taxes an estimated \$1.35 billion over the next 10 years. The largest share of this overall tax reduction is generated by the reduction in the income tax marginal tax rates, which will cut taxes an estimated \$842 billion. The other changes that will generate the largest tax reductions include the increase in the child exemption (\$172 billion), the repeal of the estate tax (\$138 billion), and the reduction in the "marriage tax penalty" (\$63 billion).

Impact on Michigan Taxes

In addition to cutting Federal taxes, the tax cuts included in the Economic Growth and Tax Relief

Reconciliation Act of 2001 will have an impact on Michigan's State government taxes. In general, the bases of Michigan's individual income and estate taxes are both directly tied to key components of the Federal income and estate taxes, including key definitions, measures of income, and tax credits, among others. To the extent that the new Federal tax cuts change these key Federal tax components on which Michigan's taxes are based, Michigan's taxes also will be affected by the Federal tax cuts. For example, the starting point for Michigan's individual income tax is Federal adjusted gross income (AGI). Therefore, any change to Federal AGI also will affect Michigan's income tax. On the other hand, the cut in the Federal income tax rates will have no direct impact on Michigan's income tax because Michigan's tax rate is in no way linked to the Federal tax rates.

As shown in Table 1, it is estimated that the Federal tax reductions will reduce Michigan's taxes an estimated \$34 million in fiscal year (FY) 2001-02, \$120 million in FY 2002-03, and \$179 million in FY 2003-04. Almost all of this loss in revenue will affect the General Fund/General Purpose budget. While estimates of the revenue loss have not yet been made for later years, Michigan will continue to experience a loss in revenue through FY 2010-11, after which there will be no revenue loss because the Federal taxes will revert to their previous levels. The key ways in which Michigan's tax will be reduced are summarized below.

Table 1 ESTIMATED IMPACT OF THE 2001 FEDERAL TAX CHANGES ON MICHIGAN'S TAX REVENUE (dollars in millions)			
Federal Tax Changes	FY 2001-02	FY 2002-03	FY 2003-04
Income Tax			
Education Provisions:			
New Deduction for Higher Ed Expenses	(\$10.2)	(\$13.1)	(\$16.6)
Expansion of Education IRAs	(1.2)	(2.1)	(2.5)
Other	(1.5)	(2.1)	(2.4)
Subtotal Education Provisions	(\$12.9)	(\$17.3)	(\$21.5)
Adoption Credit Increase	1.1	1.1	1.1
Pensions and IRA Increases	(4.5)	(9.7)	(12.1)
Total Income Tax Loss	(\$16.3)	(\$25.9)	(\$32.5)
Single Business Tax Loss	(0.5)	(0.9)	(1.0)
Estate Tax Loss	(17.0)	(93.0)	(145.0)
Total Michigan Tax Loss	(\$33.8)	(\$119.8)	(\$178.5)
Source: Senate Fiscal Agency estimates			

Income Tax. Income tax revenue will be reduced an estimated \$16 million in FY 2001-02 and \$33 million by FY 2003-04. This loss in revenue will be due primarily to changes in special tax provisions related to education expenses as well as individual retirement arrangements (IRAs) and pensions. A credit for adoptions will offset a small portion of this revenue loss.

- **Education-Related.** The largest single negative impact on Michigan's income tax revenue will result from the new Federal deduction for certain higher education expenses. Under this deduction, which will be in effect for tax years 2002 to 2005, taxpayers will be able to deduct from AGI higher education expenses for such items as tuition, fees, books, and required equipment, and some taxpayers will be able to deduct room and board expenses. In addition, education IRAs and the deduction for interest paid on student loans were increased. These education-related income tax changes will reduce Michigan's income tax revenue an estimated \$12.9 million in FY 2001-02 and \$21.9 million by FY 2003-04.

- **Pensions and IRAs.** A number of changes to the Federal tax code increase the amount taxpayers may contribute to tax-deductible retirement accounts or other tax-deferred retirement and pension plans. These IRA and pension-plan changes will reduce Michigan's income tax revenue an estimated \$4.5 million in FY 2001-02 and \$12.1 million by FY 2003-04.

- **Adoption Tax Credit.** Michigan's income tax includes a special credit for certain adoption expenses that exceed the Federal adoption credit. The recent changes to the Federal income tax included increasing the Federal adoption credit. As a result, less adoption expense will now be eligible for the Michigan credit and the cost of Michigan's credit will decline an estimated \$1.1 million a year.

Estate Tax. The Federal estate tax allows a credit, up to a certain maximum, for any death-related tax an estate has to pay to a state government. Most states, including Michigan, levy an estate tax equal to the maximum credit allowed under the Federal estate tax. As a result, Michigan's estate tax does not increase the tax

burden on an estate, but simply captures some of the tax revenue that otherwise would go to the Federal government. A number of changes were made to the Federal estate tax in the Economic Growth and Tax Relief Reconciliation Act of 2001, including phasing in the repeal of the estate tax over the next 10 years and phasing out the state death tax credit over the next four years. As a result of these changes, the revenue from Michigan's estate tax will decline an estimated \$17 million in FY 2001-02, \$93 million in FY 2002-03, and \$145 million in FY 2003-04. Because the Federal state death tax credit will be eliminated in 2005, Michigan's estate tax, which generated about \$155 million in FY 2000-01, will be completely eliminated in FY 2004-05.

More detailed information on the Federal tax cuts and the impact they will have on Michigan's taxes, is available in a Senate Fiscal Agency report entitled, "The Economic Growth and Tax Relief Reconciliation Act of 2001". This report is available on the Senate Fiscal Agency web site @ www.senate.state.mi.us/sfa/, or from the Senate Fiscal Agency at (517-373-5300).